Small Business Innovation Research

1-Picosecond, High-Impedence Absolute-Voltage Probe/Pulser with 1-Microvolt Sensitivity

Picometrix, Inc. (Formerly Picotronix)
Ann Arbor, MI

INNOVATION

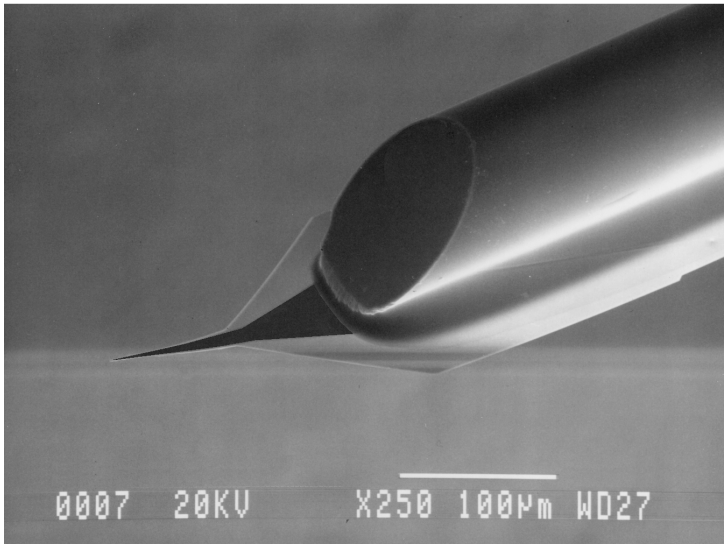
Ultra-high frequency electronics and submillimeter-wave probe for advanced space communication

ACCOMPLISHMENTS

- Developed silicon-on-sapphire high-impedence probe with response time of 2 ps and 10-µV sensitivity
- Optical fiber interface was integrated with probe
- High-impedence sampling gate with 5 ps resolution and 10 µV sensitivity was developed using fiber-based probe
- Demonstrated on-wafer probing with 7 ps resolution using a 5-ps laser-activated sampling gate, combined with a 50-Ohm impedence Picoprobe

COMMERCIALIZATION

- High-impedence probe is used in the manufacture and testing of ultrafast photodectors
- Has exclusive patent license for picosecond resolution, high-impedence probe for world wide application



Picosecond Probe

GOVERNMENT/SCIENCE APPLICATIONS

- NASA technology satellites
- Military satellites
- Any high frequency communications or sensing application

1992 Phase II, NAS3-26969, 5/01
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Company Contact – Steven Williamson